

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Original) A mobile agent transfer system for portable devices comprising:

a server;

a portable device; and

wherein a mobile agent is transferred between said server and said portable device; wherein said server has a configuration so as to transfer, to said portable device, a place code used to implement, on a side of said portable device, an environment in which said mobile agent is able to be executed when said mobile agent is transferred from said server to said portable device; and

wherein said portable device has a configuration so as to implement, on a side of said portable device and based on said place code transferred from said server, an environment in which said mobile agent is able to be executed.

2. (Original) The mobile agent transfer system for portable devices according to Claim 1, wherein said place code is used to implement, on said portable device, an agent unarchiving section used to reconstruct said mobile agent based on information transmitted from said server, a portable device side calculation processing section to run said mobile agent reconstructed by said agent unarchiving section, and an agent transmitting section used to transmit said mobile agent having completed operations in said portable device side calculation processing section to

said server and wherein said portable device has a program control section to implement, on said portable device, said agent unarchiving section, said portable device side calculation processing section, said agent transmitting section based on said place code transmitted from said server.

3. (Currently Amended) A mobile agent transfer system for mobile communicating devices comprising:

a server;

a mobile communicating device;

an. information transfer device to connect said mobile communicating device to said server; and

wherein a mobile agent is transferred between said server and said mobile communicating device through said information transfer device;

wherein said server has a server side calculation processing section to run said mobile agent, an agent transferring section used to transfer, to said mobile communicating device, information about an internal state of said mobile agent, a program code of said mobile agent, a place code used to implement, on said mobile communicating device, an agent reconstructing section, mobile communicating device side calculation processing section and agent transmitting section, and an agent receiving section used to retrieve said mobile agent transferred from said mobile communicating device and ~~to put~~ putting said mobile agent into [[a]] an enabled state, wherein ~~where~~ said mobile agent is able to start operations the mobile agent is executable in the server side calculation and processing section, and

wherein said mobile communicating device has a program acquiring section used to acquire said information about an internal state of said mobile agent, said program code of said mobile agent, and said place code transmitted from said server and a program control section to implement, on said mobile communicating device, said agent reconstructing section, said mobile communicating device side calculation processing section and said agent transmitting section, based on said place code acquired by said program acquiring section, wherein said agent reconstructing section has a configuration so as to reconstruct said mobile agent based on said information about internal states of said mobile agent and said program code of said mobile agent, wherein said mobile communicating device side calculation processing section has a configuration so as to run said mobile agent reconstructed by said agent reconstructing section and wherein said agent transmitting section has a configuration so as to transmit said mobile agent having completed operations in said portable side calculation processing section to said server.

4. (Original) The mobile agent transfer system for mobile communicating devices according to Claim 3, wherein said server has a standby list creating section used to transmit, to said mobile communicating device, a standby list showing mobile agents being in a standby state to be transferred to said mobile communicating device, wherein said mobile communicating device has a standby list displaying section used to provide said standby list transmitted from said server to a user or other device and to notify said program acquiring section of said mobile agent selected by said user or other device out of mobile agents indicated by said provided standby list,

and wherein said program acquiring section has a configuration so as to make a request for acquiring said mobile agent notified by said standby list displaying section to said server.

5. (Original) The mobile agent transfer system for mobile communicating devices according to Claim 3, wherein said server has a movement number managing section used to create and manage a movement number required to ignore messages other than a message that has first arrived when a plurality of messages each having same contents to transfer a mobile agent has reached said agent receiving section from said agent transmitting section in said mobile communicating device due to a failure of a network.

6. (Original) The mobile agent transfer system for mobile communicating devices according to Claim 3, wherein said agent transferring section has an agent waiting section used to manage information about an identifier of a mobile agent and location of a program code of said mobile agent being in a standby state to be transferred to said mobile communicating device, a program description file creating section used to make a request of a program archive creating section to create an archive when a request for a program description file for a mobile agent is made from said program acquiring section and to return said program description file containing a location of said archive created by said program archive creating section to said program acquiring section, and a program archive creating section used to create, in response to a request from said program description file creating section, an archive containing a program code of a mobile agent, information about an internal state of said mobile agent, and a

place code, and to return, in response to a request from said program acquiring section, said archive.

7. (Original) A method for transferring a mobile agent for portable devices between a portable device and a server, said method comprising:

a step in which said server transfers, to said portable device, a place code used to implement, on a side of said portable device, an environment in which said mobile agent is able to be executed when said mobile agent is transferred from said server to said portable device; and

a step in which said portable device implements, on said portable device and based on said place code transferred from said server, an environment in which said mobile agent is executed.

8. (Original) The method for transferring the mobile agent for portable devices according to Claim 7, wherein said place code is used to implement, on said portable device, an agent reconstructing section used to reconstruct said mobile agent based on information transmitted from said server, a portable device side calculation processing section to run said mobile agent reconstructed by said agent reconstructing section, and an agent transmitting section used to transfer said mobile agent having completed operations in said portable device side calculation processing section to said server and wherein said portable device has a program control section to implement, on said portable device and based on said place code transmitted from said server, said agent reconstructing section, said portable device side calculation processing section and said agent transmitting section.

9. (Original) A method for transferring a mobile agent for portable devices for transferring said mobile agent between a portable device and a server, said method comprising:

a step in which said server transfers information about an internal state of a mobile agent, a program code of said mobile agent, and a place code used to implement, on said portable device, an agent reconstructing section, portable device side calculation processing section, and agent transmitting section, to said portable device; a step in which said portable device implements, based on said place code transmitted from said server, said agent reconstructing section, said portable device side calculation processing section, and said agent transmitting section;

a step in which said agent reconstructing section reconstructs said mobile agent, based on said information about said internal states and said program code of said mobile agent transmitted from said server;

a step in which said portable device side calculation processing section executes said mobile agent that has been reconstructed by said agent reconstructing section; and

a step in which said agent transmitting section transmits said mobile agent having completed operations in said portable device side calculation processing section.

10. (Original) The method for transferring the mobile agent for portable devices according to Claim 9, wherein said server transmits, to said portable device, a standby list showing mobile agents being in a standby state to be transferred to said portable device and wherein said portable device provides said standby list transmitted from said server to a user or other device and to

make a request of said server for said mobile agent selected by said user or other device out of mobile agents indicated by said provided standby list.

11. (Original) The method for transferring the mobile agent for portable devices according to Claim 9, wherein said server creates and manages a movement number required to ignore messages other than a message that has first arrived when a plurality of messages each having same contents to transfer a mobile agent has reached said agent receiving section from said portable device due to a failure of a network.

12. (Original) A program for implementing a mobile agent transfer system for portable devices to enable a mobile agent to be transferred between a computer for a portable device and a computer for a server comprising:

processing of having said computer for said server transfer a place code used to implement, on said computer for said portable device, an environment in which said mobile agent is able to be executed when said mobile agent is transferred to said computer for said portable device; and

processing of having said computer for said portable device it implement, on said computer for said portable device and based on a place code transferred from said computer for said server, an environment in which said mobile agent is able to be executed.

13. (Currently Amended) A program for implementing a mobile agent transfer system for portable devices to enable a mobile agent to be transferred between a computer for a portable device and a

computer for a server comprising:

processing of having said computer for said server function as a server computer side calculation processing section to run said mobile agent, as an agent transferring section to transfer, to said computer for said portable device, information about internal states of said mobile agent and about a program code of said mobile agent and a place code used to implement, on said computer for said portable device and based on internal states and program code of said mobile agent transmitted from said computer for said server, an agent unarchiving section to reconstruct said mobile agent, portable device side calculation processing section to run said mobile agent reconstructed by said agent unarchiving section, and an agent transmitting section to transmit said mobile agent having completed operations in said portable device side calculation processing section to said computer for said server, and as an agent receiving section to unarchive said mobile agent transferred from said computer for said portable device and ~~to put putting~~ said mobile agent into [[a]] an enabled state wherein where said mobile agent is able to start operations the mobile agent executable on said server computer side calculation processing section, and

processing of having said computer for said portable device function as a program acquiring section to acquire information about internal states and program code of said mobile agent transmitted from said computer for said server and a place code, and as a program control section to implement, on said computer for said portable device and based on said place code acquired by said program acquiring section, said agent unarchiving section, said portable device side calculation processing section, and said agent transmitting section.

14. (Original) A storage medium storing a program for implementing a mobile agent transfer system for portable devices to enable a mobile agent to be transferred between a computer for a portable device and a computer for a server comprising:

processing of having said computer for said server transfer a place code used to implement, on said computer for said portable device, an environment in which said mobile agent is able to be executed when said mobile agent is transferred to said computer for said portable device; and

processing of having said computer for said portable device implement, on said computer for said portable device and based on a place code transferred from said computer for said server, an environment in which said mobile agent is able to be executed.

15. (Original) A storage medium storing a program for implementing a mobile agent transfer system for portable devices to enable a mobile agent to be transferred between a computer for a portable device and a computer for a server comprising:

processing of having said computer for said server function as a server computer side calculation processing section to run said mobile agent, as an agent transferring section to transfer, to said computer for said portable device, information about internal states of said mobile agent and about a program code of said mobile agent and a place code used to implement, on said computer for said portable device and based on internal states and program code of said mobile agent transmitted from said computer for said server, an agent unarchiving section to reconstruct said mobile agent, portable device side calculation processing section to run said mobile agent reconstructed by said agent unarchiving section, and an agent transmitting section to transmit said mobile agent having completed operations in said portable device side calculation

processing section to said computer for said server, and as an agent receiving section to unarchive said mobile agent transferred from said computer for said portable device and to put said mobile agent into a state where said mobile agent is able to start operations on said server computer side calculation processing section, and

processing of having said computer for said portable device function as a program acquiring section to acquire information about internal states and program code of said mobile agent transmitted from said computer for said server and a place code, and as a program control section to implement, on said computer for said portable device and based on said place code acquired by said program acquiring section, said agent unarchiving section, said portable device side calculation processing section, and said agent transmitting section.

16. (Original) A mobile agent transfer system for mobile communicating devices comprising:

a server;

a mobile communicating device; and

wherein a mobile agent is transferred between said server and said mobile communicating device;

wherein said server has a configuration so as to transfer, to said mobile communicating device, a place code used to implement, on a side of said mobile communicating device, an environment in which said mobile agent is able to be executed when said mobile agent is transferred from said server to said mobile communicating device; and

wherein said mobile communicating device has a configuration so as to implement, on

a side of said mobile communicating device and based on said place code transferred from said server, an environment in which said mobile agent is able to be executed.

17. (Original) The mobile agent transfer system for mobile communicating devices according to Claim 16, wherein said place code is used to implement, on said mobile communicating device, an agent reconstructing section to reconstruct said mobile agent based on information transmitted from said server, a mobile communicating device side calculation processing section to run said mobile agent reconstructed by said agent reconstructing section, and an agent transmitting section used to transmit said mobile agent having completed operations in said portable device side calculation processing section to said server and wherein said mobile communicating device has a program control section to implement, on said mobile communicating device, said agent reconstructing section, said mobile communicating device side calculation processing section, said agent transmitting section based on said place code transmitted from said server.